

PATENT COOPERATION TREATY ANKOM

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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

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IP AB
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SUEDE

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing

(day/month/year)

08.09.2003

Applicant's or agent's file reference

PL70020PC00

IMPORTANT NOTIFICATION

International application No.

PCT/SE02/01791

International filing date (day/month/year)

01.10.2002

Priority date (day/month/year)

02.10.2001

Applicant

IVP INTEGRATED VISION PRODUCTS AB et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
preliminary examining authority:



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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PL70020PC00	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/SE02/01791	International filing date (<i>day/month/year</i>) 01.10.2002	Priority date (<i>day/month/year</i>) 02.10.2001
International Patent Classification (IPC) or both national classification and IPC G01B11/30		
Applicant IVP INTEGRATED VISION PRODUCTS AB et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 28.04.2003	Date of completion of this report 08.09.2003
Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 </div> </div>	Authorized Officer Dighaye, J-L Telephone No. +49 89 2399-2823



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/SE02/01791**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-7 as originally filed

Claims, Numbers

1-16 as originally filed

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/SE02/01791

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-16
	No: Claims	
Inventive step (IS)	Yes: Claims	1-16
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

see separate sheet

1. The following documents are cited:

E1: US-A-4 188 544

E2: US-A-4 984 172

E3: US-A-5 644 392

E4: WO-A-95/24636 = family member of D2 cited in the application

E5: US-A-3 976 384 = D1 cited in the application

2. Important introductory remark:

The findings below are based on a clarifying interpretation of the set of claims. In a later stage of the procedure, for instance if the present application enters the European phase, the incriminated expressions should best be clarified throughout the application.

In claim 1, I. 8, reference is made to light having a limited "dispersion". Later, in I. 16, reference is made again to light "dispersion", however the signification appears to be different. The "dispersion" of I. 8 is apparently the divergence of the beam, whereas the "dispersion" of I. 16 is in effect related to scattering.

In E4, p. 2, para. 1, a description of the effects of scattering is provided. Light scattered into the wood (thus being "dispersed" somehow) is opposed to the directly reflected light component. This is the usual optical terminology. By contrast, in the present description, the corresponding passage (p. 1, I. 25 seq.) calls "dispersion" what pertains to scattering, and, what is worse, states that the reflected part of the light "is termed 'scattered light'", which is misleading. The examiner understands that "dispersion" should read scattering and that the phrase "and is termed 'scattered light'" should be ignored.

3. Claim 1 as interpreted above appears to be novel and inventive over the cited prior art.

E1, as seen for instance from the abstract, deals with signal processing of reflected light. Processing of scattered or otherwise "dispersed" light is not

envisaged. Thus E1 is not relevant.

E2 is a further document dealing with the "reflected beam" only, see the abstract.

E3 is capable of detecting "grain defects and product geometry simultaneously" (beginning of the abstract), which hints at both scattering and reflecting properties. However, this can only be done, in E3, using "multiple scanner sets" i.e. a principle differing from the claimed one.

E4 has many features in common with present claim 1, since "at least one linear light source" and "a light sensor" are used "to detect the presence of scattered light" (see claim 1 of E4) as well as "reflected light" (see claim 3 of E4). However, in the described embodiments, when such a double measurement is done, several light sources projecting at least two lines on the object are used (see Fig. 3), so that two digital representations are provided (see Fig. 4), not one representation as presently claimed. It is not foreseen to derive the two present kinds of information from a single representation. Maybe this was considered impractical: in that case, the presently claimed features would even overcome a technical prejudice.

E5 discloses a method and apparatus for detecting timber defects by injecting light into the surface of the timber and detecting light emerging from the timber at a different location, hence it is based on scattering only, not on reflection.

In summary, none of the cited documents discloses or hints at the features of present claim 1.

4. Independent device claim 9 substantially corresponds to method claim 1.

All the other claims are dependent claims.